

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

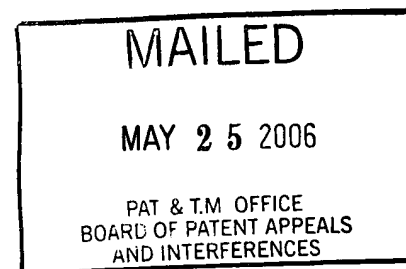
**UNITED STATES PATENT AND TRADEMARK OFFICE**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Ex parte DONALD K. WRIGHT, CHRISTOPHER L. PEMBERTON and  
JAMES K. HANKINS

Appeal No. 2006-0984  
Application No. 09/415,696

HEARD: APRIL 25, 2006



Before FRANKFORT, CRAWFORD and BAHR, Administrative Patent Judges.

BAHR, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's rejection of claims 1, 4-10, 18 and 19. Claims 13-17 and 21-26 stand withdrawn from consideration under 37 CFR § 1.142(b).

We AFFIRM and enter a new rejection pursuant to 37 CFR § 41.50(b).

### BACKGROUND

The appellants' invention relates to a recloseable fastener profile assembly and a recloseable storage bag incorporating such recloseable fastener profile assembly.

"In particular, the invention relates to a seal arrangement for a recloseable zipper profile strip which is created through the application of heat and pressure to a male and female profile to form a 'compression molded segment' seal" (present specification, page 1). A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

This application is before this Board for a second time. In a decision mailed July 11, 2003, in Appeal. No. 2003-0068, an earlier panel, *inter alia*, affirmed a rejection of claims 1, 4-10, 18 and 19 as being anticipated by Tilman (US Pat. No. 5,071,689, issued December 10, 1991). Subsequent to that decision, the appellants submitted evidence, discussed below, in rebuttal of that rejection.

#### ***Applied Prior Art***

Howard	3,986,914	Oct. 19, 1976
Tilman	5,071,689	Dec. 10, 1991
Anderson	6,033,113	Mar. 7, 2000

According to the examiner (advisory action mailed October 28, 2004), the appellants' response filed on August 30, 2004, including the filing of a terminal

disclaimer, has overcome the obviousness-type double patenting rejections of claims 1, 4-10, 18 and 19, the rejection of claim 18 under 35 U.S.C. § 102(e) as being anticipated by the Sprehe et al. patent and the rejection of claims 1, 4-10 and 19 under 35 U.S.C. § 103 set forth in the final rejection (mailed May 28, 2004). Accordingly, the rejections of claims 1, 4-10, 18 and 19 under 35 U.S.C. § 102(b) as being anticipated by Tilman, claims 1, 4-9, 18 and 19 under 35 U.S.C. § 102(b) as being anticipated by Howard and claims 1, 4-10, 18 and 19 under 35 U.S.C. § 102(e) as being anticipated by Anderson are before us for review.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding this appeal, we make reference to the examiner's answer (mailed September 28, 2005) for the examiner's complete reasoning in support of the rejections and to the appellants' brief (filed August 15, 2005) and reply brief (filed November 21, 2005) for the appellants' arguments thereagainst.

### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art, to the declaration of Paul A. Tilman filed September 10, 2003 (the Tilman declaration) and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations that follow.

The rejection of claims 1, 4-10, 18 and 19 as being anticipated by Tilman is not sustained. The Tilman declaration, attested to by the inventor of the Tilman patent, at paragraph 6, evidences that the terminology "airtight seal" is understood by those skilled in the art of recloseable plastic bags to be "a seal that will at least prohibit the movement of atmospheric pressure, room-temperature air molecules across the seal for an indefinite length of time." The Tilman declaration further states, at paragraph 10, that the female base 14 and arrow-shaped protuberance 15 of Tilman's zipper strip do not extend all the way to the seal because of deformation caused by local thermal and mechanical deformation of the base 14 and protuberance 15 caused by the spot sealing means 19. In paragraph 11, the Tilman declaration includes an enlarged reproduction of Figure 4 of the Tilman patent and points to an "AIR GAP REGION" thereon between the spot seal/hinge 21 and the terminal extent of the female base/protuberance 15 where there is no seal structure. According to paragraph 12 of

the declaration, this "AIR GAP REGION" is an artifact of spot sealing. Further, at paragraph 13, the Tilman declaration states:

As the sole inventor of the '689 patent and as one skilled in the art of recloseable seals for plastic bags, the structure and method disclosed and claimed in the '689 patent does not explicitly or inherently provide a seal that is airtight under any definition of "airtight." The structure and method disclosed in the '689 patent will inherently leak air and other gaseous molecules through an air gap located between the extent of the sealing structures 14 and 15 and the spot seal produced by spot sealing means.

The Tilman declaration evidences that one of ordinary skill in the art of recloseable plastic bags would not consider the zipper or bag of Tilman to be "airtight" as that term is understood in the art and, further, that one of ordinary skill in this art would understand the ribs (base 14 and protuberance 15) of Tilman's zipper strip to be deformed or distorted outside of the seal. In the face of this evidence, which has not been rebutted with evidence by the examiner, the examiner's determination that the Tilman zipper and bag contain a fused section which is substantially flattened to form an "airtight" seal, "without distorting said ribs of said first and second profile strips outside of said fused section" as called for in independent claims 1 and 18 is not supported by a preponderance of the evidence. Accordingly, the examiner's rejection of claims 1 and 18, as well as claims 4-10 and 19 depending from claim 1, as being anticipated by Tilman cannot be sustained.

The rejection of claims 1, 4-9, 18 and 19 as being anticipated by Howard likewise cannot be sustained. The reasons for this conclusion follow.

Howard sets out to eliminate the separation flaws which occur near the junction of the fastener and the side edges of the prior art container discussed in columns 1 and 2 to produce a bag that is fluid-tight (column 8, line 1), bacteria-proof (column 13, line 3) and odor-tight (column 13, line 40) by using a heat sealing method that controls the flow of plastic under heat and pressure. Howard does this by using a pressure bar (106, 206 or 306) provided with a channel adapted to receive the portion of the fastener located within the seal region. The disposition of the fastener within the channel causes the pressure on the fastener portion to be significantly less than that applied to the remainder of the plastic stock in the region of the seal. As a result of this pressure differential, heated plastic from the part of the seal region surrounding the fastener portion is forced into the channel in the general direction of the arrows 130-133 of Figures 8 and 9. Howard describes the use of the channel 120 as preventing the pressure bar from deforming the fastener, thus avoiding the stress-created flaws resulting from the use of the prior art pressure bars (column 10, lines 17-21).

According to Howard, the plastic flow into the fastener is restricted and directed by the channel to flow toward the open ends of the channel, thus flowing into the voids formed adjacent the fastener as well as into and along the grooves formed in the fastener and between the halves of the fastener. When the heat is removed, this plastic hardens in

place, thereby sealing the ends of the fasteners at 62 and 62' (see column 10, second full paragraph). Howard further discloses continuous feed of the plastic stock, including the container blank with secured fastener, in column 8, lines 46-48.

In light of the description of Howard, as discussed above, Howard's fastener and plastic container appear on their face to fully anticipate the features of appellants' independent claims 1 and 18. The Anderson patent, however, points out some drawbacks with Howard's sealing method in columns 1 and 2. In particular, Anderson states, in column 2, lines 48-60, that

although the process does attempt to reduce escape gaps, it does so by deforming the actual sealing profile of the zipper closure. By borrowing material from the interlocking portions of the zipper closure to close escape gaps, the Howard process undesirably compromises the integrity of the zipper seal. Thus, although plastic bags made by the Howard process may be more leak-resistant (i.e. more gas-tight and liquid-tight) at rest than those bags made by other conventional techniques that did not eliminate escape gaps, such bags made by the Howard process would tend to open prematurely when subjected to even minor forces, for example when the contents of a plastic bag falls against the zipper closure.

Anderson rebuts Howard's statement that the pressure bar used in Howard's sealing process prevents the bar from deforming the fastener. The tendency of Howard's bag to open prematurely when subjected to even minor forces because of the borrowing of material from the interlocking portions of the zipper as described by

Anderson indicates that the sealing process of Howard does result in deformation or distortion of the interlocking portions (ribs) of the fastener outside of the fused section. As such, Howard fails to meet the “without distorting said ribs ... outside of said fused section” limitation recited in independent claims 1 and 18 and claims 4-9 and 19 depending from claim 1.

We turn our attention now to the rejection of claims 1, 4-10, 18 and 19 as being anticipated by Anderson. We note that the appellants have not argued separately the patentability of claims 1, 4-10 and 19 apart from claim 18. Therefore, claims 1, 4-10 and 19 shall stand or fall with representative claim 18 (see In re Young, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); In re Wood, 582 F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978)).

Anderson describes “an air-tight and liquid-tight” zipper closure-type plastic bag in which unwanted escape gaps are eliminated at the intersection of the zipper closure and the side edges of the bag and across the entire length of the zipper closure. According to Anderson, the escape gaps are eliminated by adding a mass of material to the zipper closure at the boundaries where such escape gaps would otherwise occur. See column 3, last paragraph. As described in Anderson’s abstract, “[c]onventional heat dies are used in combination with excess quantities of plastic material, either integrally formed, or, alternatively, co-extruded with, the zipper closure to form the



fillets, thereby eliminating the need for use of a pressure differential-producing die [as used in Howard's sealing method] to manufacture plastic bags without escape gaps."

The appellants' claim 18 reads on Anderson's plastic bag as follows: Anderson describes a plastic bag comprising first and second bag walls (front and rear layers not illustrated in Figure 3), a recloseable fastener profile assembly (zipper closure 61) including a first profile strip (front layer 52) including at least one rib (finger 57) extending from the surface thereof, a second profile strip (rear layer 54) opposite said first strip including at least two ribs (fingers 55, 58, each of said fingers including a fillet 60 formed integrally as part thereof, as illustrated in Figure 3 and described in the abstract, or added to each of the front and rear layers of the zipper closure, as described in column 5, lines 36-39) extending from the surface thereof and interlocking or sealingly engaging with the at least one rib (finger 57) and maintaining an airtight seal when so engaged, a compression molded<sup>1</sup> segment seal portion, illustrated in Figure 6, fusing together said first profile strip (front layer 52), said second profile strip (rear layer 54) and said ribs (fingers 55, 57 and 58, including the fillet portions) of said first and second profile strips (front and rear layers 52, 54), said fused section including a fused section of said first and second profile strips (front and rear layers 52, 54) formed through the application of heat and pressure (see column 5, lines 45-54) and being substantially flattened to form an airtight seal (column 3, line 56), without

distorting said ribs (fingers 57, 55, 58) outside of said fused section, thereby maintaining said airtight seal of said profile strips when interlocked, said seal portion having a thickness, as seen in Figure 6, less than the combined thickness of said first profile segment and said second profile segment, as seen in Figure 3, 4 or 5.

The appellants' only argument with respect to this rejection is that Anderson "has additional material in the form of the fillet attached to the fastener, and it is the fillet that forms the airtight seal, not the fused sections of the first and second profile strips" (brief, page 10). This argument is not well taken, as claim 18 is open-ended and does not exclude the presence of additional, unrecited elements as part of the seal portion or fused section. Moreover, as discussed above, Anderson describes at least three alternative embodiments, including the addition of a fillet to each of the front and rear layers of the zipper closure, the integral formation of the fillet and the fingers 55, 58 and the co-extrusion of a fillet of different material from the zipper closure with the zipper closure (column 5, last paragraph).

In light of the above, the rejection of claim 18 as being anticipated by Anderson is sustained. The like rejection of claims 1, 4-10 and 19, which stand or fall with claim 18, is also sustained.

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<sup>1</sup> Anderson describes application of heat and pressure to fuse the layers of the zipper closure together.

NEW GROUNDS OF REJECTION

Pursuant to our authority under 37 CFR § 41.50(b), we enter the following new grounds of rejection.

Claims 1, 4-10, 18 and 19 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one of ordinary skill in the art to make and/or use the invention.

The first paragraph of 35 U.S.C. § 112 requires that the specification describe the manner and process of making and using the invention so as to enable a person of skill in the art to make and use the full scope of the invention without undue experimentation. AK Steel Corp. v. Sollac & Ugine, 344 F.3d 1234, 1244, 68 USPQ2d 1280, 1287 (Fed. Cir. 2003).

The appellants' claims are directed to a recloseable fastener profile assembly comprising a compression molded segment seal portion including a fused section of the first and second profile strips of the fastener substantially flattened to form an *airtight* seal of said first and second profile strips, ***without distorting said ribs of said first and second profile strips outside of said fused section.*** With respect to the formation of the seal, the appellants' specification discloses only that a seal arrangement is created through the application of heat and pressure to a male and female profile to form a "compression molded segment" seal (page 1) and that

the engaged first profile 14 and second profile 18 are fed or otherwise positioned in proximity to the compression molded segment sealer 62. The compression molded segment sealer 62 provides heat and pressure to the profile assembly 10 to form the compression molded segment seal 22 [page 6].

The appellants' specification further discloses, on pages 7 and 8, that

FIGS. 9 and 10 represent graphically the method of forming a fastener profile assembly 70 disclosed herein. As seen in FIG. 9, the following steps are performed in sequence: first 82, an interconnected profile strip 10 is provided; second 84, heat and pressure is applied by the compression molded segment sealer 62 to the interconnected profile strip 10 to form a compression molded segment seal 22; and third 86, the profile strip 10 is advanced 82. The second 84 and third 86 steps are then repeated to form additional completed profile assemblies 70.

Aside from disclosing that heat and pressure is applied by the compression molded segment sealer, the appellants' specification divulges none of the details of the process of forming the seal 22 and gives no indication that the seal is formed without distorting the ribs of the first and second profile strips outside of the fused section to thereby maintain the airtight seal, as called for in independent claims 1 and 18, as well as the claims depending therefrom. As evidenced by the patents to Tilman, Howard and Anderson discussed above, the mere application of heat and pressure to seal the ends of the fastener strips or plastic bags is not, in and of itself, sufficient to achieve the type of "airtight" seal, without distortion of the ribs of the fastener strips outside of

the seal, now recited in the appellants' claims. Tilman, Howard and Anderson all highlight the efforts and difficulties of those skilled in the art of recloseable plastic bags in creating an "airtight" seal of the type claimed by the appellants. Howard attempted, unsuccessfully according to Anderson, to solve this problem by creating a pressure differential between the junction and the regional area of the container adjacent the junction by using a pressure bar provided with a channel, as discussed above, and Anderson added excess quantities of plastic material along uppermost and lowermost interlocking fingers of the zipper to prevent escape gaps, especially at the bag's seal locations. The appellants, on the other hand, do not disclose the means by which they achieve the "airtight" seal as claimed, using heat and pressure, and without excess plastic material.

In light of the above, it is apparent that certain specific, and undisclosed, details of the compression molded segment sealing process described by the appellants in their specification are required to achieve the type of "airtight" seal claimed by the appellants. The efforts and difficulties in the prior art, as highlighted by Tilman, Howard and Anderson, of achieving this type of "airtight" seal provide reasonable basis to conclude that the generic teaching of the use of a compression molded segment sealer to apply heat and pressure to the profile assembly to form the seal is insufficient to enable one of ordinary skill in that art to make the appellants' claimed invention without undue experimentation.

Claims 1, 4-10, 18 and 19 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification so as to convey to one of ordinary skill in the art that the appellants, at the time the application was filed, had possession of the invention now claimed.

As discussed above, the appellants' specification, as originally filed, gave no indication that the seal 22 is to be formed "without distorting said ribs of said first and second profile strips outside of said fused section" as now recited in independent claims 1 and 18. Moreover, for the reasons articulated above, nothing described in the appellants' original application would have conveyed to one of ordinary skill in the art that such a seal was necessarily intended or achieved by the appellants' invention.

### CONCLUSION

To summarize, the rejections of claims 1, 4-10, 18 and 19 as being anticipated by Tilman and claims 1, 4-9, 18 and 19 as being anticipated by Howard are reversed and the rejection of claims 1, 4-10, 18 and 19 as being anticipated by Anderson is sustained. New rejections of claims 1, 4-10, 18 and 19 under the first paragraph of 35 U.S.C. § 112 are entered pursuant to 37 CFR § 41.50(b). We regret the entry of these new grounds of rejection at this late stage in the prosecution of this application. We nevertheless feel compelled to do so by the examiner's silence in response to the

earlier panel's invitation (decision in Appeal No. 2003-0068, page 4, n. 2) to consider the description issue.

Regarding the affirmed rejection(s), 37 CFR § 41.52(a)(1) provides "[a]ppellant may file a single request for rehearing within two months from the date of the original decision of the Board."

In addition to affirming the examiner's rejection(s) of one or more claims, this decision contains a new ground of rejection pursuant to 37 CFR § 41.50(b) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)). 37 CFR § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 CFR § 41.50(b) also provides that the appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

Should the appellants elect to prosecute further before the examiner pursuant to 37 CFR § 41.50(b)(1), in order to preserve the right to seek review under 35 U.S.C. § 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellants elect prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.



AFFIRMED; 37 CFR § 41.50(b)

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